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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/774,215	02/06/2004	Takeo Eguchi	09792909-5804	8170
26263	7590	03/06/2006	EXAMINER	
SONNENSCHN NATH & ROSENTHAL LLP P.O. BOX 061080 WACKER DRIVE STATION, SEARS TOWER CHICAGO, IL 60606-1080			FEGGINS, KRISTAL J	
			ART UNIT	PAPER NUMBER
			2861	

DATE MAILED: 03/06/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/774,215	Applicant(s) EGUCHI ET AL.	
	Examiner K. Feggins	Art Unit 2861	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) ____ is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-10 and 12 is/are allowed.
- 6) ☒ Claim(s) 11 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☒ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>5/13/2005</u> | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claim 11 is rejected under 35 U.S.C. 102(e) as being anticipated by Barr et al. (US 6869361 B2).

Barr et al. disclose the following claimed limitations:

* regarding claim 11, a method for discharging liquid through a head including a plurality of liquid dischargers having nozzles aligned in a predetermined direction (col 3, lines 59-67, col 4, lines 1-2, figs 1-3);

* wherein the head is capable of deflecting the trajectory of a droplet discharged from the liquid discharger with various amplitudes along a predetermined direction and for discharging droplets from at least two of the liquid dischargers in the vicinity onto the same pixel area (to be entitled to weight in method claims, recited structure limitation must affect the method in a manipulative sense and not to amount to the mere claiming of a use of a particular structure);

* the method comprising the steps of relatively moving a recording medium and the head in a direction substantially perpendicular to the predetermined direction (col 3, lines 23-38, figs 1-3);

* forming a pixel composed of a predetermine number of dots by discharging a predetermine number of droplets from the liquid dischargers during the relative movement (col 4, lines 3-28),

* storing information on a shut-off discharger due to droplet discharge failure among the plurality of liquid dischargers (col 5, lines 41-61, figs 4-6);

* transferring at least a part of a liquid discharge signal directed to the shut-off discharger to at least one of the other liquid dischargers according to the information stored in the storing unit (col 8, lines 41-67, lines 1-38, figs 4-6);

* controlling the discharge of droplets from at least one of the other liquid dischargers to which the liquid discharge signal was transferred (col 6, lines 51-67, col 7, lines 22-67, figs 4-6).

Allowable Subject Matter

3. Claims 1-10 & 12 are allowed.

The following is an examiner's statement of reasons for allowance: The primary reason for allowance of claim 1 is the inclusion of the limitations of a liquid discharge apparatus that includes a deflecting unit for deflecting the trajectory of a droplet discharged from one of the liquid dischargers in a predetermined direction and commanding at least two of the liquid dischargers in the vicinity to discharge droplets

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onto the same pixel area. It is this limitation found in the claims, as it is claimed in the combination of that has not been found, taught or suggested by the prior art of record, which makes these claims allowable over the prior art.

The primary reason for allowance of claim 2 is the inclusion of the limitations of a liquid discharge apparatus that includes a deflecting unit capable of deflecting the trajectory of a droplet discharged from the liquid discharger with various amplitudes along a predetermined direction and for discharging droplets from at least two of the liquid dischargers in the vicinity onto the same pixel area. It is this limitation found in the claims, as it is claimed in the combination of that has not been found, taught or suggested by the prior art of record, which makes these claims allowable over the prior art.

The primary reason for allowance of claims 3-10 is the inclusion of the limitations of a liquid discharge apparatus that includes a discharge deflecting unit capable of deflecting the trajectory of a droplet discharged from the liquid discharger with various amplitudes along the predetermined direction, the deflecting unit discharging droplets from at least two of the liquid dischargers in the vicinity onto the same pixel area, and discharging droplets from a liquid discharger selected from among the liquid dischargers capable of discharging droplets onto a pixel area for a pixel composed of a predetermined number of dots. It is this limitation found in the claims, as it is claimed in the combination of that has not been found, taught or suggested by the prior art of record, which makes these claims allowable over the prior art.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Couwenhoven et al. (US 6354689 b1) disclose a method of compensating for malperforming nozzles in a multitone inkjet printer. Koitabashi et al. (US 6908176 B2) disclose a recording apparatus for forming a color image where supplementing units for effecting supplementations in different manners, for supplementing defects in a recorded image resulting from a non-operating recording element of the recording elements and controls units for operating the plurality of supplementing units depending on a record image. Hermanson (US 5581284) disclose a method of extending the life of a printbar of a color ink jet printer by checking each nozzle in the printbar for drop ejection, identifying any nozzle which fails to eject a droplet and substituting at least one droplet from a nozzle to another printbar.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

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Communication With The USPTO

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to K. Feggins whose telephone number is 571-272-2254. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Talbott Dave can be reached on 571-272-1934. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

 2/84
K. FEGGINS
PRIMARY EXAMINER